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AT 13,000 FEET ON MT. McKINLEY *Photo by* BRADFORD WASHBURN

SCAIFE LECTURE ON APRIL 5 *(See inside page for announcement)*

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April Announcement

The regular April meeting of the California Academy of Sciences will be held in the Auditorium of the Pacific Gas and Electric Company, 245 Market Street, on Wednesday evening, April 5, at eight o'clock. Following a brief business meeting, the second of the spring series of lectures on the Walter B. Scaife Foundation will be given by Mrs. Einar Nilsson, whose subject will be:

Three Weeks on Top of Mt. McKinley

Einar Nilsson was one of a party of men who climbed Mt. McKinley in the summer of 1942, testing equipment of the United States and Canadian armies for use at high altitudes and under extreme conditions of snow and ice. Seven men reached the summit (20,464 feet), spending about three weeks at levels of 15,000 to 18,000 feet. Mr. Nilsson is at present in Washington, D. C., as a special assistant in the War Department, designing and testing army equipment.

Mrs. Nilsson will describe the expedition as recorded in her husband's diary. Her lecture will be illustrated by Kodachrome slides from photographs taken by her husband, and by motion pictures in color made for the War Department by Bradford Washburn, who was also a member of the expedition.

The public is cordially invited.

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Applications for Membership

Notice is hereby given to all Corporate Members that the Council at its meeting on March 16, 1944, approved the applications of Mrs. George H. Atkins, Dr. Sterling Bunnell, and Mayor Roger D. Lapham for Membership, and of Mr. Robert Harlick, Mr. Ferron MacIntyre, and Mr. Sol R. Shein for Student Membership, in the California Academy of Sciences. If no objection to the election of these applicants be received at the office of the Academy within two weeks after March 31, they will be considered elected.

William Emerson Ritter

William Emerson Ritter was born in Columbia County, Wisconsin, on November 19, 1856, and died in Berkeley, California, on January 10, 1944. Thus briefly are recorded the beginning and the end of a long and singularly fruitful life, devoted to the pursuit of learning, the dissemination of scientific knowledge, and to efforts on behalf of the welfare of mankind.

Coming to California in his student days, William Ritter was graduated in 1888 from the University of California, an institution with which he was identified during nearly all of the remainder of his eighty-seven years. Following a period of graduate study at Harvard, where he was awarded the doctorate in 1893, he returned to his alma mater as instructor in biology, rising to the rank of professor of zoölogy in 1902. He was active in connection with the founding of the Scripps Institution for Biological Research (now the Scripps Institution of Oceanography) at La Jolla, of which he was director from 1909 till his retirement in 1923. He was also the founder, with the late E. W. Scripps, of Science Service, of which he was long the honorary president.

His scientific investigations ranged widely over the field of zoölogy, including studies of the morphology and taxonomy of ascidians and Enteropneusta, the sense organs of blind fishes, the habits of salamanders, and the habits and behavior of birds. He also wrote extensively on philosophical aspects of biology.

Professor Ritter became a member of the California Academy of Sciences in 1892, a life member in 1900, and was elected a fellow in 1917. He served as president from 1898 to 1900. At the time of his death he held the unusual record of having been a member of the Academy fifty-two years.

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Academy Library Goes to War

A highly important but little known contribution to history on the march is being made by the museums of America and the libraries associated with them. It requires no more than a moment's reflection to decide that, if you wanted to find out something about Guadalcanal, New Guinea, Amboina or Attu, the most direct method would be to ask someone who had been there, and the most likely place to find such a person would be on the staff of some museum. The library of that museum, it naturally follows, could be expected to possess a considerable and immediately available collection of books, maps and special papers dealing with the regions visited by its staff.

Within a very few weeks after the outbreak of war, the Academy had supplied to both the Army and Navy large files of information and photographs relating to remote areas of great strategic importance. Since that time the library staff has been busy much of the time ferreting out special information needed by the armed forces. Often the desired data were on their way by plane within a few hours after the call was received.

In view of the extremely confidential nature of this work, the News Letter has hitherto refrained from comment on it. However, it appears proper to repeat what has already appeared in the public press. The following statement relative to the work of the Army Map Service is quoted from the Palo Alto Times:

> When the gathering of this important material was begun, the most readily available and resourceful centers were tapped first—the great libraries of universities and other institutions, notable on the list being the collections of the University of California, Stanford University and the California Academy of Sciences.

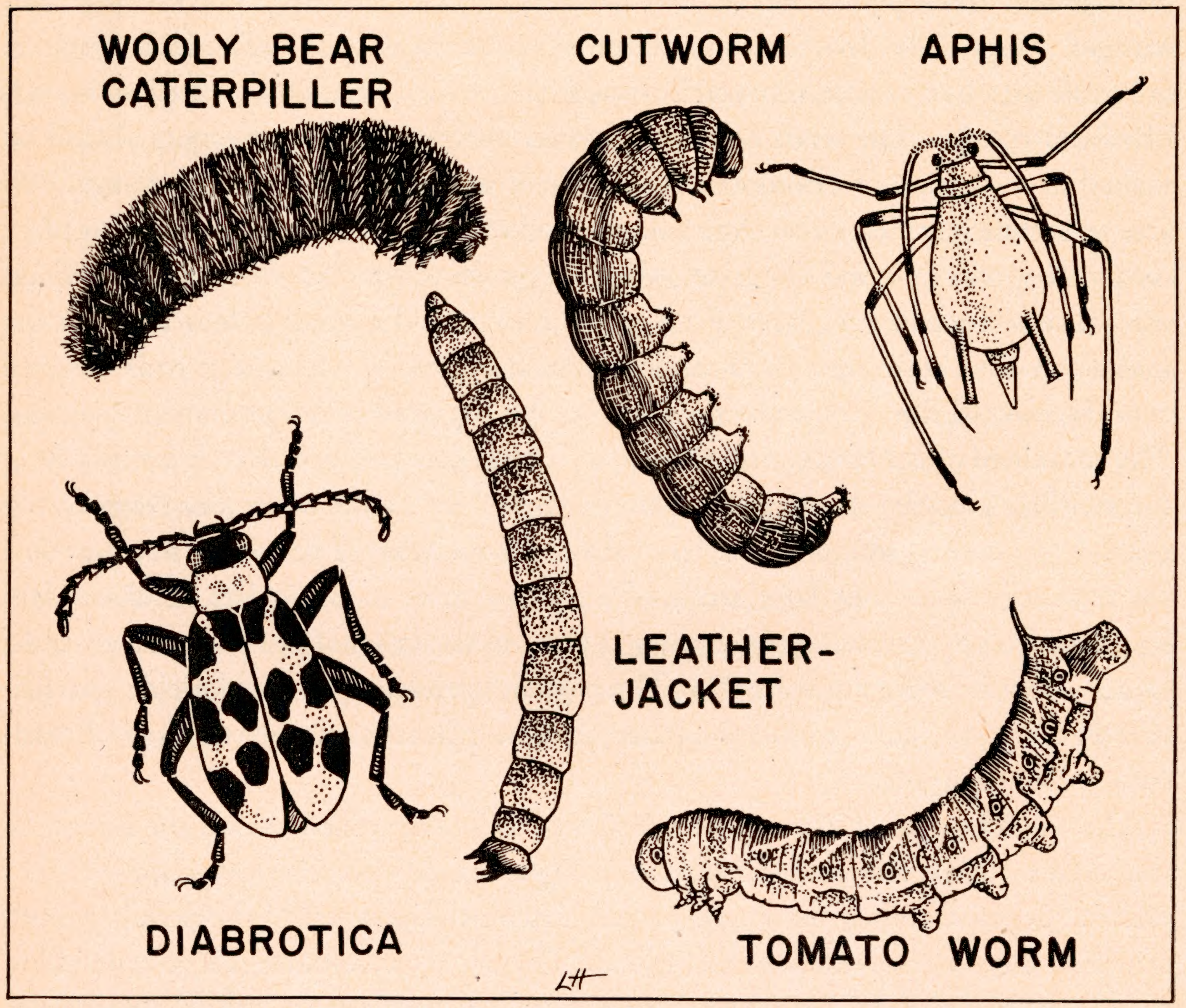
When Miss Veronica J. Sexton of the Academy's library staff, who has freely devoted her evenings, Sundays and holidays to this form of service, was asked to comment on specific instances in which information supplied by this library was reflected in the news of subsequent movements of our armed forces, she replied cryptically, "All I can say is that we have scored at least a few direct hits."

Pests of the Victory Garden

With the feeling of spring in the air our thoughts once again turn to victory gardening and the harvests to be reaped during the long summer months as the fruit of our labor. We remember the pleasures but perhaps forget the trials and tribulations of the previous year's attempts, for this is human nature.

Those sturdy few who have maintained a winter garden have enjoyed a privilege not accorded to the summer gardener. Cabbages, cauliflowers, broccoli, turnips, radishes, and other varieties that thrive in cool weather have matured without the usual struggle against a host of insect pests. We grant that the omnipresent aphids have tried but those who were so fortunate as to have some rotenone dusting powder remaining from pre-war days had little difficulty in eliminating them as they appeared or at least in keeping them well under control. Then again there were cutworms, especially when the winter peas were about an inch or so in height. All in all, however, insect enemies were few in numbers and their populations very low. Let us prepare ourselves then for the myriads of cabbage butterflies, onion maggots, cabbage root maggots, aphids, cutworms, leaf hoppers, cucumber beetles and other saboteurs that will shortly mobilize for the attack.

A preliminary step, essential in preparation for the war which surely will be thrust upon us if we wish to reap the rich benefits of home gardening, is the removal of all refuse and litter, especially from marginal areas. Piles of leaves, prunings and other debris which have not been spaded under or which have been raked aside the previous fall provide luxurious accommodations for certain injurious pests which have survived in numbers the rigors of winter. Among these may be mentioned sow bugs, snails and slugs. A clean garden and particularly the elimination of refuse which tends to accumulate in the areas immediately surrounding cultivated parts is the finest method of controlling these enemies. Generous helpings of commercial poisons, especially those containing metaldehyde, should also be sprinkled about at regular intervals throughout the year.



In a recent interview Dr. E. C. Van Dyke, Honorary Curator of Entomology in the California Academy of Sciences, made a statement with which many gardeners will agree, namely, that the worst enemy of a garden is weeds. This is true in more ways than one. All kinds of pests thrive unnoticed on the weeds in empty lots. When a hopeful victory gardener plants his crop nearby the pests desert their patch of weeds in exchange for the more attractive succulent young plants in the new garden. It is a wise precaution, therefore, to burn off or otherwise eliminate these sources of infection, even though it represents considerable additional work, before beginning to plant.

Further discussion with Dr. Van Dyke revealed that insect enemies to victory gardens may be grouped into several general categories, based upon their habits. First there are those species, including the cabbage root maggots, the onion maggots, leather-jackets, wire worms and white grubs, that live entirely beneath the ground during their larval period and destroy the roots of various crops. The cabbage root maggot is especially destructive to all members of the cabbage tribe including not only cabbage but mustard, broccoli, cauliflower, kale and others, as well as to radishes and turnips. The seeds of various plants affected by root maggots should be soaked in a solution of calomel or bichloride of mercury just before planting. This acts as an efficient deterrent. Another method of preventing infestation is to place tar paper squares around the bases of seedlings when they are transplanted. To do this three or four-inch squares of tar paper are cut and a small hole is made in the middle. A slit connecting the hole with one side permits the square to be slipped over the base of the young plant after it has been placed in its permanent location. The combined effect of covering the surface of the ground immediately surrounding the seedling plus the strong odor of the tar paper deters the adult flies from laying their eggs on the ground at the base of the plant. This, of course, is not practical for root vegetables; but long strips of tar paper, four to six inches in width, laid lengthwise along each side of the rows as close to the bases of the plants as possible, greatly help in reducing infection. The regular sprinkling of dichloricide (paradichlorbenzine) crystals around the bases of these plants is another method of combating root maggots.

The second group of insect pests consists of those that hide beneath the surface of the soil during the daytime and emerge at night to feed upon the leaves and stems of plants. Foremost among the group are the cutworms, the larvae of the darkling moth of which there are several hundred species. There are several methods of controlling cutworms. In small gardens careful inspection at night with the aid of a flashlight, especially around plants known to have been attacked the previous night, will reveal their presence. In larger gardens where picking off individuals from plants at night is impractical the use of poisoned baits, such as those advocated for snails and slugs, is often highly effective.

The majority of insects that the gardener must contend with, however, are those that live above the ground on the leaves and stems of the vegetables. Even though they may readily be discovered upon a careful inspection of the foliage their eradication is at times a difficult matter requiring considerable patience and perseverance. The aphis is perhaps the most injurious and certainly, once having gained a foothold in a garden, by far the most abundant among this group. There are many different

kinds of aphis which attack various garden vegetables. The same methods of control, however, apply to all.

As a preliminary to aphis control all ant colonies should be eliminated. Ants use the honey-dew secreted by these little insects; consequently they greatly encourage the development of aphis colonies, carrying the individuals bodily to various plants.

Nicotine sprays are effective in killing aphis but insecticide powder containing rotenone is even better if it can be obtained. Pyrethrum dust is also recommended. In the use of any of these agents to kill aphis it is necessary to so spray that the liquids or powders directly contact the insects. This implies very careful spraying as aphis are usually to be found on the undersides of leaves or on the inside leaves of certain heading plants where they are easily overlooked.

The green cabbage worm, the larva of the common white cabbage butterfly, and the cucumber beetle (*Diabrotica*) are two other common garden pests that are best controlled by the use of rotenone or pyrethrum dust. To eliminate green tomato hornworms a dusting mixture composed of either calcium arsenate or lead arsenate mixed with hydrated lime in the proportion of one to two is highly effective.

While insect pests are numerous the victory gardener should by no means despair. With a little care their depredations may readily be kept under control and damage reduced to a negligible minimum. Examine your plants regularly and catch insect infections before they have a chance to become established. Don't wait until the plants are dead to carry on control work. If these simple precautions are heeded you will be amply rewarded through the summer and autumn months with an abundance of vegetables whose fresh flavor and low cost will surely justify your efforts.

New Library Assistant Appointed

Miss Alice S. Mulford has joined the Academy's library staff. A graduate of the University of California, with a master's degree in zoölogy and a certificate of librarianship, Miss Mulford is particularly qualified for the work of a museum library. Prior to coming to the Academy she was employed at the New Jersey State Museum, Trenton, New Jersey.

Aquarium Society Meets April 6

The regular monthly meeting of the San Francisco Aquarium Society will be held in the Steinhart Aquarium on Thursday, April 6, at 8:00 p.m. Refreshments will be served. All interested persons are invited to attend.

STUDENT MEETING ON APRIL 1

ON SATURDAY afternoon, April 1, Student Members of the Academy will meet in Room 214, Simson African Hall, at 2:00 o'clock. In recognition of the date, the program will be devoted to a discussion of the topic, "How Animals Fool Their Foes." Motion pictures will be shown appropriate to the occasion and subject. Come and bring your friends.

SECTION 562 P.L.&R.